LISTING OF CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. **(Original)** A method of orienting a spherical object, comprising:

acquiring an image of a spherical object at an imaging station;

analyzing the image with a first computer to determine an orientation analysis;

transferring the object from the imaging station to orienting stations using a transfer mechanism; and

orienting the object to a predetermined orientation according to the orientation analysis;

wherein the orienting stations comprise first, second, and third stations each rotating the object about a single axis; the first, second, and third stations collectively orienting the object by rotation about axes that are alternately perpendicular.

2. **(Original)** The method of claim 1 wherein the object is a golf ball.

3. **(Original)** The method of claim 1 wherein the transfer mechanism comprises a walking beam or a rotary indexer.

4. **(Original)** The method of claim 2 wherein the rotary indexer is a cam-driven mechanical indexer.

5. (Canceled)

6. **(Original)** The method of claim 1 wherein the transfer mechanism has a vacuum cup to hold the object.

7. **(Original)** The method of claim 1 wherein the transfer mechanism has a gripping member to hold the object.

8. **(Original)** The method of claim 1 wherein the transfer mechanism comprises a compliant object carrier that is movable translationally and substantially immovable rotationally.

9. **(Original)** The method of claim 8 wherein the compliant object carrier comprises a compliant bellows coupling.

10. **(Original)** The method of claim 8 wherein a holder cup has an internal cup diameter approximately equal to an outside diameter of the object, and the object helps to guide the object carrier to the rotation cup.

11. **(Original)** The method of claim 8 wherein a shot pin helps to guide the object carrier into alignment with a holder cup.

12. (Canceled)

13. **(Original)** The method of claim 1 wherein a driven cup clamps onto, and rotates, the object after the transfer mechanism indexes the object.

14. **(Original)** The method of claim 1 wherein at least one of the orienting stations is at least partially mounted onto the transfer mechanism.

15. **(Original)** The method of claim 14 wherein the second station comprises a spindle mounted onto the transfer mechanism.

16. **(Original)** The method of claim 15 wherein a motor mounted on the transfer mechanism rotates the spindle to rotate the object.

17. **(Original)** The method of claim 16 further comprising acquiring an image of the object as the motor rotates the object.

18. **(Original)** The method of claim 15 further comprising driving the spindle with a friction wheel to rotate the object.

19. **(Original)** The method of claim 15 further comprising magnetically coupling a motor onto the spindle to rotate the object.

20. **(Canceled)**

21. **(Original)** The method of claim 15 further comprising sliding the spindle into an engaged position wherein a motor is coupled to the spindle as the spindle slides into the engaged position.

22. **(Original)** The method of claim 21 wherein the spindle engages the motor through a blade and slot mechanism while the transfer mechanism indexes the object.

23. **(Original)** The method of claim 1 further comprising alternating a flow of data from the imaging station to the first computer with a flow of data from the imaging station to a second computer.

24. **(Original)** The method of claim 1 further comprising sending image data from the first computer to a second computer that computes and communicates the analysis to the orienting stations.

25. **(Original)** The method of claim 1 wherein two of the three alternate perpendicular axes are vertical.

26. **(Canceled)** The method of claim 1 wherein two of the three alternate perpendicular axes are horizontal.

27. **(Original)** A method of orienting a spherical object, comprising:
acquiring an image of a spherical object at an imaging station;

analyzing the image with a first computer to determine an analysis;

transferring the object from the imaging station to orienting stations using a transfer mechanism; and

orienting the object to a predetermined orientation according to the analysis.

28. **(Original)** The method of claim 27 wherein the transfer mechanism comprises a walking beam or a rotary indexer.

29. **(Original)** The method according to claim 27 wherein the transfer mechanism comprises a compliant object carrier that is movable translationally and substantially immovable rotationally.

30. **(Original)** The method according to claim 27 wherein a holder cup has an internal cup diameter approximately equal to an outside diameter of the object, wherein the object helps to guide the object carrier to the holder cup.

31. **(Original)** The method according to claim 27 wherein at least one of the orienting stations is at least partially mounted onto the transfer mechanism.

32. **(Original)** The method of claim 31 wherein the at least one of the orienting stations comprises a spindle mounted onto the transfer mechanism.

33. **(Original)** The method according to claim 27 wherein the imaging station is an image acquisition and object orienting station that comprises a gimbaled mechanism that rotates the object about three perpendicular axes without a transfer from one station to another station between the rotations.

34. **(Original)** The method according to claim 27

wherein the object is transferred to an orienting station that has a gimbaled mechanism that rotates the object about three perpendicular axes without a transfer from one station to another station between the rotations.

35. **(Original)** The method of claim 34 wherein an automated transfer mechanism transfers the object to the orienting station.

36. **(Original)** An orienter for a spherical object, comprising:

an imaging station having an image detector;

a computer that can determine an image analysis;

three orienting stations that operably receive the analysis and can rotate the object about perpendicular axes; and

a transfer mechanism having a compliant object carrier that is movable translationally and substantially immovable rotationally;

wherein the detector operably images an object, the computer operably determines the image analysis, and the three stations operate to orient the object according to the analysis.

37. **(Original)** The orienter of claim 36 wherein the object is a golf ball.

38. **(Original)** The orienter of claim 36 wherein the transfer mechanism comprises a walking beam or a rotary indexer.

39. **(Original)** The orienter of claim 36 wherein a holder cup having an internal cup diameter approximately equal to an outside diameter of the object can guide the object carrier to the holder cup.

40. **(Original)** The orienter of claim 36 wherein the at least one of the orienting stations is at least partially mounted onto the transfer mechanism.

41. **(Original)** The orienter of claim 40 wherein the at least one of the orienting stations comprises a spindle mounted onto the transfer mechanism.

42. **(Original)** The orienter of claim 36 wherein the orienting stations comprises a plurality of indexing wheels.

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